

ABSTRACT

The invention relates to electrochemistry, in particular to anodizing parts made of valve metals such as aluminium, titanium, tantalum etc and alloys thereof and can be used for producing solid heat-resistant and wear-resistant coatings for mechanical engineering. A method consists in placing a part in an electrolyte on a current-conductive holder coated with an insulating material, producing a working voltage between said part and electrolyte and raising the voltage until a micro-arc discharge is originated on the part surface. The holder of the part is externally coated with an electroinsulating material at the air-electrolyte interface. The technical result of the invention is to produce by micro-arc oxidation heavy protective coatings which exhibit a high-hardness, have a low friction factor and a high adhesion to a base material on the parts made of the valve metals or alloys thereof.